



DEFENSE ADVANCED TRAFFIC MANAGEMENT COURSE



LOGISTICS OVER THE

SHORE OPERATIONS

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DATMC #2-00
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MILITARY CARGO DISCHARGE OPERATIONS

THE MOVEMENT OF CARGO ON or OFF VESSEL
CAN BE.....

PIER SIDE

IN THE STREAM

OFF SHORE



PIERSIDE SIDE DISCHARGE

CARGO DIRECTLY ONTO PIER
FROM THE VESSEL.

MOST EFFECTIVE USE OF
PERSONNEL AND
EQUIPMENT



**FASTEST DISCHARGE
RATE**



“IN THE STREAM” DISCHARGE

**VESSEL ANCHORED IN PROTECTED
WATERS**

**CARGO DISCHARGE
ONTO “LIGHTERAGE.”**

WHY????



- INSUFFICIENT OR DAMAGED PIERS**
- CHANNEL PIER-SIDE WATER DEPTHS
ARE TOO SHALLOW FOR VESSELS.**



OFF- SHORE DISCHARGE

**VESSEL ANCHORED
OFFSHORE IN
UNPROTECTED
WATERS
VULNERABLE TO THE
EFFECTS OF WEATHER**

**MOST INTENSE
COMMITMENT OF
PERSONNEL & EQUIPMENT**

**SLOWEST DISCHARGE
RATE**



**LEAST EFFECTIVE
METHOD**



**A DEFINITION OF “LOTS” FROM FM
55-50,
ANY VESSEL DISCHARGE OPERATION OTHER
THAN ONE CONDUCTED AT A FIXED PORT.**

**INCLUDES ANY VESSEL DISCHARGE OPERATION
WHERE THE VESSEL IS DIRECTLY DISCHARGED
TO OTHER THAN LAND/LAND TRANSPORTATION.**

**INCLUDES VESSEL DISCHARGE TO LIGHTERS
AND SUBSEQUENTLY DISCHARGES OVER THE
SHORE.**

WHY LOTS..... ?

AUSTERE THEATER WITH NON-EXISTENT
PORT FACILITIES

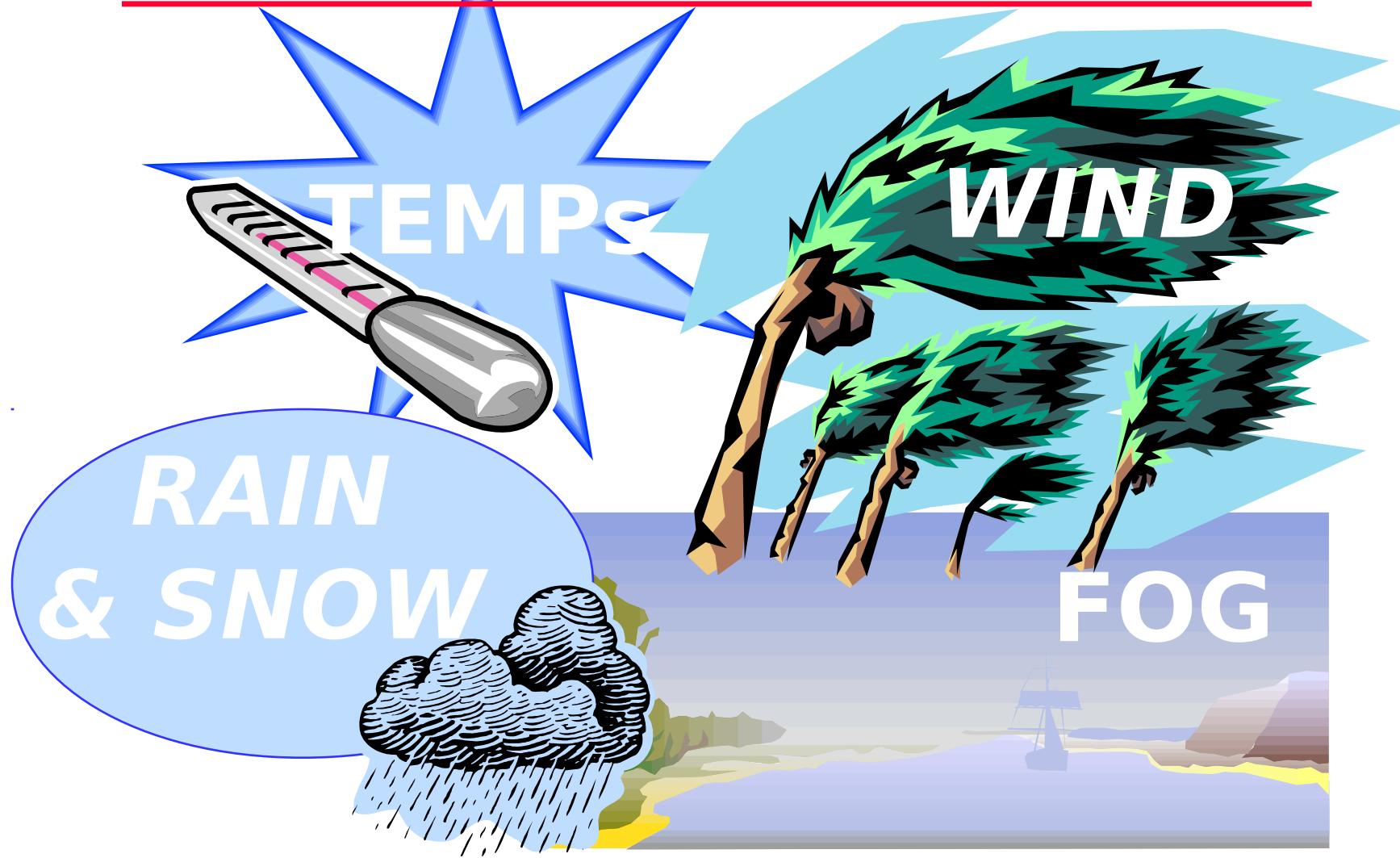
TO AUGMENT INADEQUATE
EXISTING FIXED PORT FACILITIES

EXISTING PORTS DENIED BECAUSE
OF ENEMY ACTION

SHORTEN LINES OF COMMUNICATION



EFFECTS OF WEATHER



ALL SIGNIFICANTLY LIMIT “LOTS” OPERATIONS!

WHILE WE'RE AT IT, LET'S
LOOK AT SOME OF THE
SEALIFT VESSELS..
LIKE THE.....

**FAST SEALIFT SHIP
(FSS)**



THE FSS SHIP IS A “RO/R
- COMBINATION” SHIP.

A CLASS OF 8 CONTAINER
SHIPS CONVERTED TO
TO MILITARY USE

FAST SEALIFT SHIP

CAN TRANSPORT 1,100 VEHICLES

ALTHOUGH A RO/RO, THEY CAN TRANSPORT CONTAINERS AFT.

RAMP CAPACITY IS 65 L/TONS



RAMP CAN BE USED ON EITHER SIDE
ALLOWS DISCHARGING TO BE ACCOMPLISHED
.... EVEN IN LOTS OPERATIONS



CAN BE RO/RO
OR “LO/LO”
LO/LO USES
THE SHIP’S
“HAGGLUNDS”
CRANES

THE HAGGLUNDS CRANE
IS USED TO LOAD AND
DISCHARGE CONTAINERS
AS WELL AS VEHICLES OR
OUTSIZED CARGO





**RO/RO CAN OCCUR TO PIERSIDE OF
ONE SIDE OF THE VESSEL,
WHILE....**

**WHILE LO/LO OPERATIONS
CAN BE LOADING TO
LIGHTERAGE
ON THE OTHER!**



LARGE MEDIUM SPEED RO/RO (LMSR)

5



14 NEW CONSTRUCTION



SLEWING STERN RAMP

SINGLE PEDESTAL TWIN CRANES

WIDE RAMP (MID-SECTION)

EMERGENCY HELO PAD

LARGE MEDIUM SPEED RO/RO SHIP (LMSR)

**VESSEL DESIGNED TO FULFILL THE SHORTFALL
OF 2 MILLION SQUARE FEET IN THE SEALIFT
PROGRAM**

**THE LMSR HAS AN
AVERAGE OF
350 THOUSAND
SQ FT**



**USED EXTENSIVELY FOR THE
ARMY PREPOSITIONED AFLOAT PROGRAM.**

LMSR CHARACTERISTICS



- LOA 954 FT
- BEAM 105 FT, 10 IN
- DRAFT 37 FT
- RAMPS PORT / STBD SIDE,
STERN
- SPEED 24 KNOTS



.....AND
HOW DO WE
GET 'EM TO THE
“LOTS”
OPERATION??

**....ON A
“FLO-FLO”
SHIP, OF
COURSE!!**



..... HOW'S THAT WORK??

ELEVATED CAUSEWAY

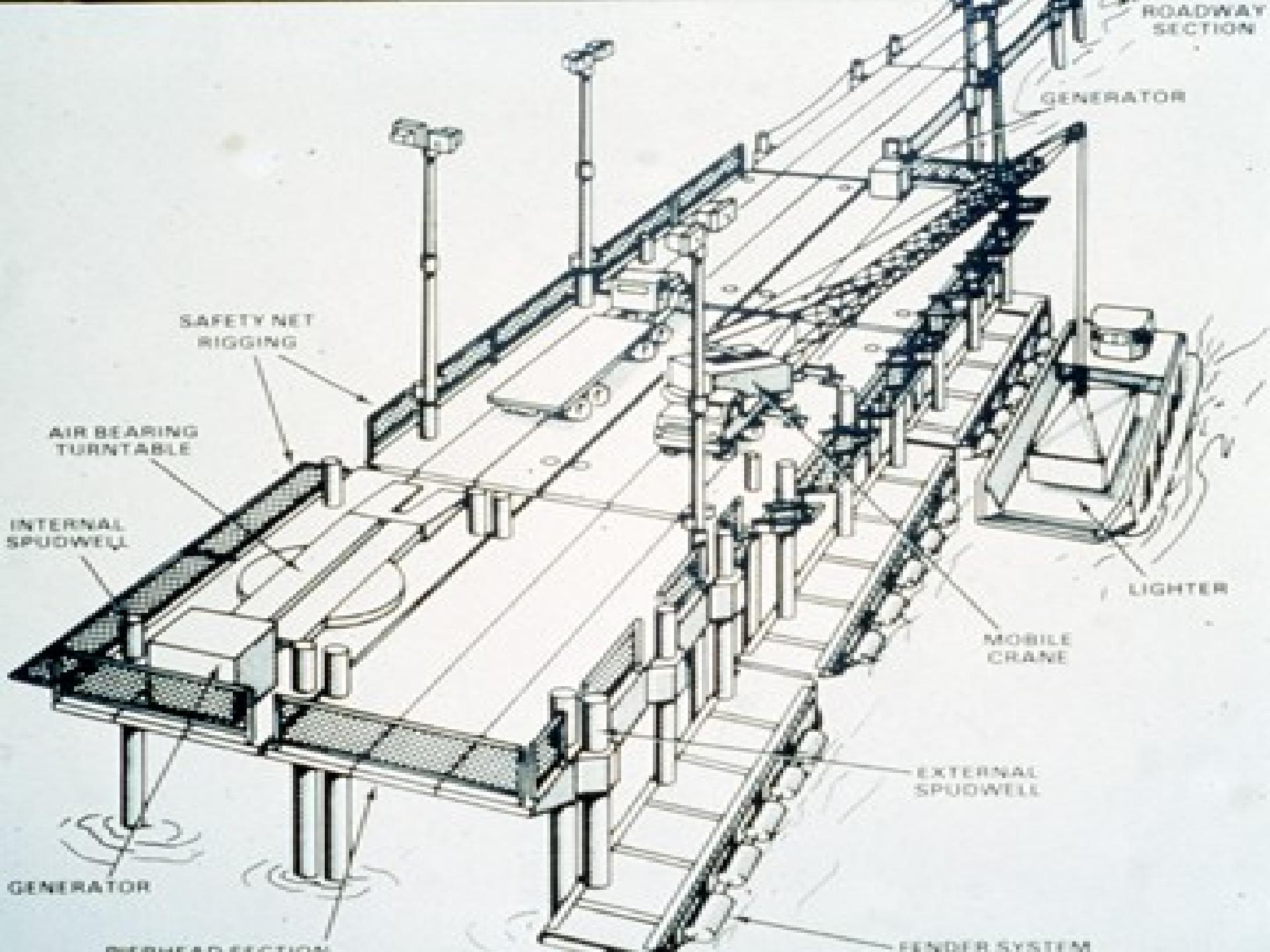


**RAPIDLY INSTALLED
PIER FACILITY**

**USED FOR “BARE
BEACH” OPERATION**

**FEATURES AIR
BEARING TURNTABLE**

**OWNED/OPERATED BY THE
NAVY.**









ROLL ON/ ROLL OFF **DISCHARGE FACILITY**

**THE “RRDF” PROVIDES AN OPEN OCEAN
INTERFACE BETWEEN OCEAN GOING
VESSELS AND CRAFT WHOSE DRAFT &
CONFIGURATION ALLOW FOR BEACH
OPERATIONS**

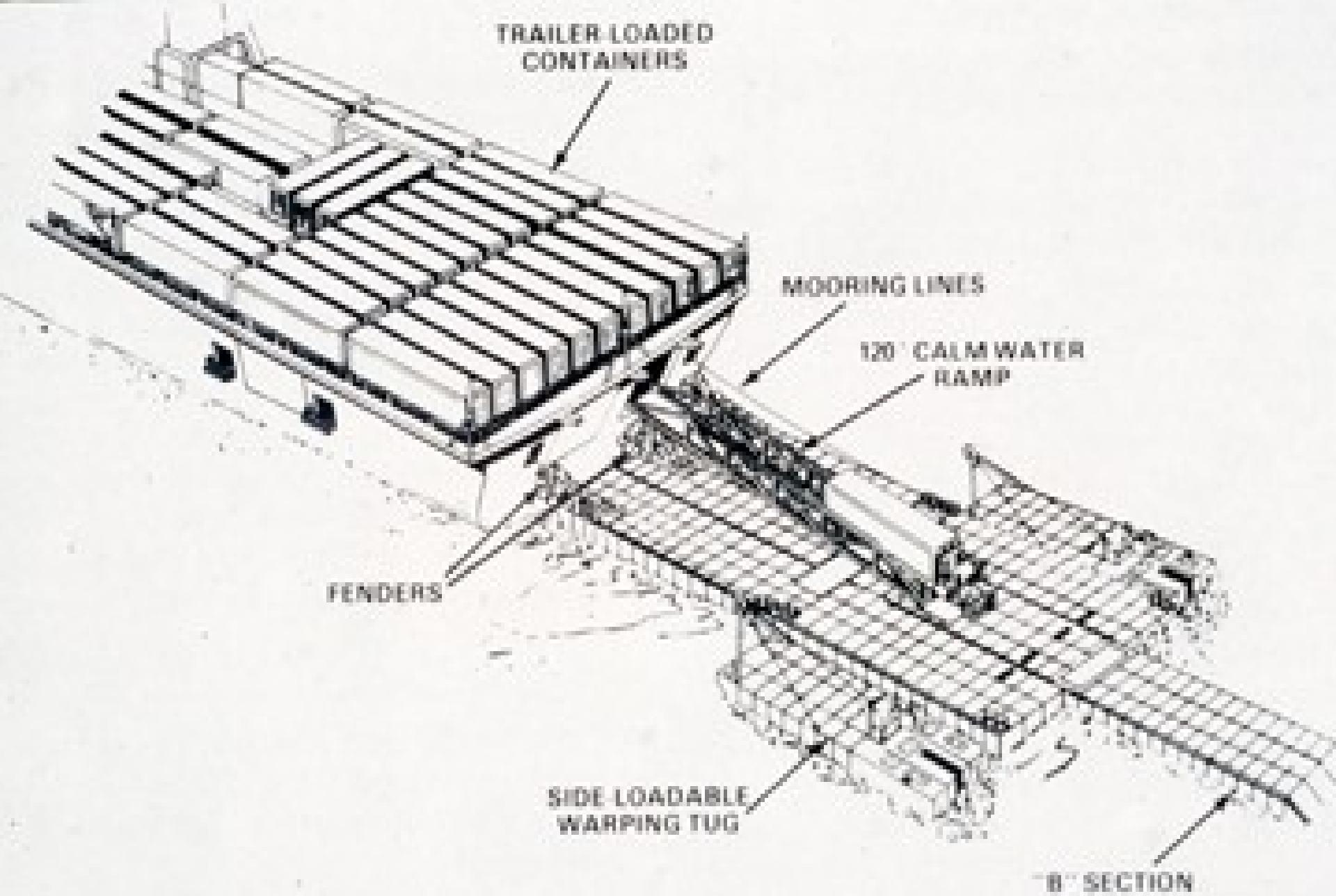


Figure 1-3. RORO discharge facility with ramp at stern port.



**CRAFT WHOSE DRAFT &
CONFIGURATION ALLOW
CAN MATE TO THE RRDF,
BE LOADED & DEPART FOR
THE BEACH**





**PLACED IN POSITION AS NEEDED
BY SLWT OR OTHER CRAFT**









CAUSEWAY FERRY

**THE CAUSEWAY FERRY ALLOWS FOR
MOVEMENT VEHICLES, BREAKBULK,
AND CONTAINERIZED CARGO FROM
OCEAN-GOING VESSELS**







SIDE LOADABLE WARPING TUGS





FLOATING CAUSEWAY (FC)

THE FLOATING CAUSEWAY IS A FLOATING PIER THAT CAN BE CONFIGURED UP TO 229 METERS LONG

THE “FC” PROVIDES A “DRY BRIDGE” FOR THE MOVEMENT OF VEHICLES FROM LIGHTERS TO SHORESIDE LOG FACILITIES

**SIDE LOADING WARPING TUGS"
POSITION THE CAUSEWAY AND
SECURE THE ANCHORS**



**EXTENDS FROM HIGH WATER
LINE INTO THE SURF ZONE**



**OFFSHORE END ALLOWS THE
LIGHTERS TO DIRECTLY
DISCHARGE TO THE ROADWAY**

**SHORESIDE END ALLOWS
DISCHARGE TO BEACH**

**ANCHOR MOORING SYSTEM
ENSURES THE CAUSEWAY
IS SECURED**





THE SYSTEM IS MODULAR

**APPROXIMATELY THE
SAME DIMENSIONS AS
A STANDARD 40-FOOT
CONTAINER**

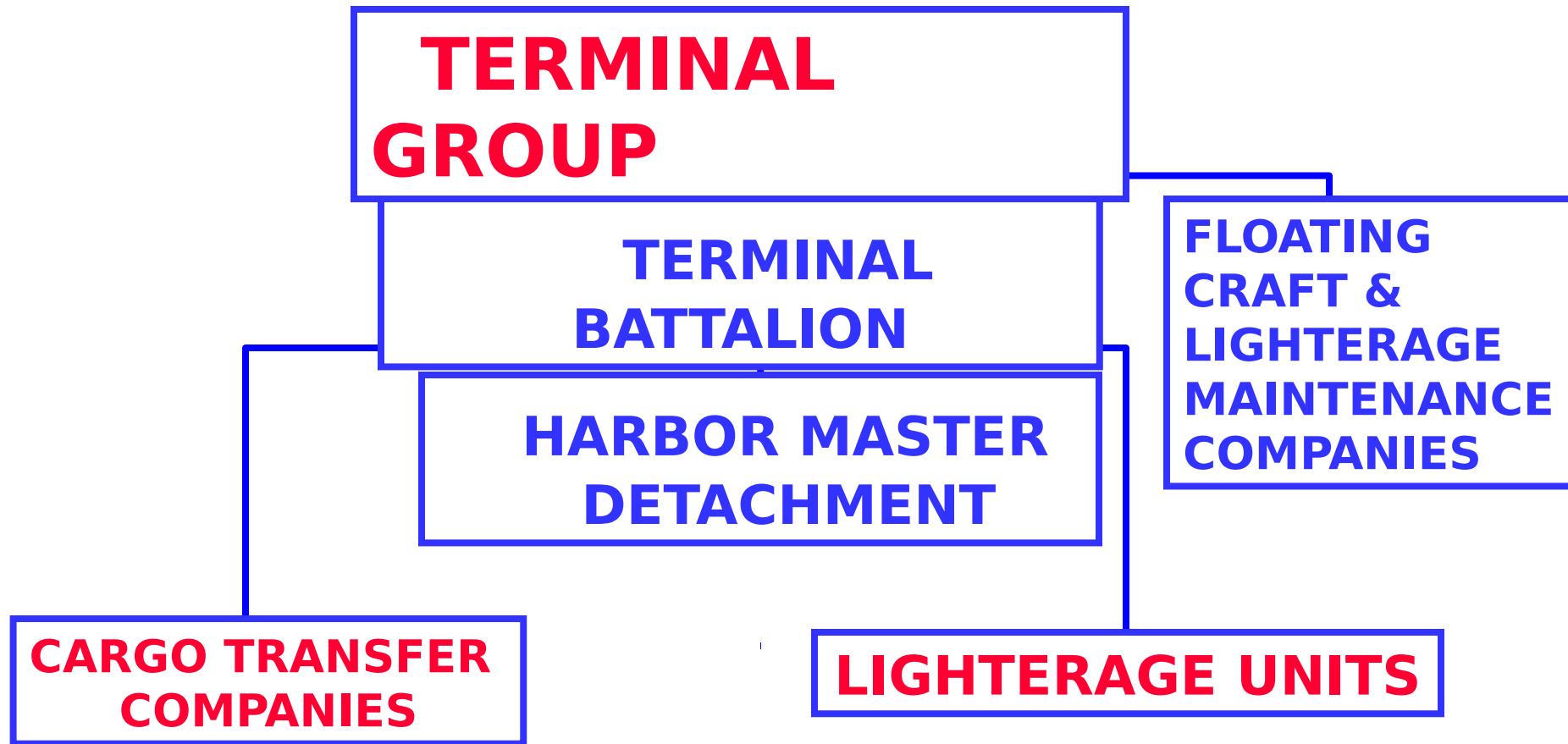
**THE MODULAR CAUSEWAY
SECTIONS ARE THEN
CONNECTED**



MODULAR, AND BOLTED TOGETHER



TYPICAL LOTS TASK FORCE



CARGO TRANSFER COMPANY

IT'S PURPOSE IS TO DISCHARGE, LOAD, AND TRANS-SHIP CARGO AT AIR, RAIL, OR TRUCK, AND WATER TERMINALS INCLUDING LOTS OPERATIONS.



CARGO TRANSFER COMPANY

THE CARGO TRANSFER COMPANY IS THE BASIC WORKING UNIT IN THEATER WATER TERMINAL OPERATIONS

FOR BREAK-BULK CARGO. IT IS ORGANIZED TO WORK A SINGLE SHIP ON A TWO SHIFT, AROUND THE CLOCK BASIS. AT FULL STRENGTH, OPERATING ON A TWO SHIFT BASIS, OR ON TWO SHIP ON A ONE SHIFT BASIS AT PIERS OR OVER BEACHES, WITH 75 PERCENT AVAILABILITY OF EQUIPMENT.

A CARGO TRANSFER COMPANY CAN DISCHARGE 1,000 SHORT TONS (STONS) OF CARGO A DAY, OR CAN LOAD 500 ST OF CARGO A DAY IN A FIXED PORT ENVIRONMENT

CARGO TRANSFER COMPANY



APOE/APOD



SEAPORT
(LO-LO)



SEAPORT
(RO-RO)



RAILHEAD



LOGISTICS-OVER-
THE-SHORE



SUMMARY of KEY POINTS

LOTS IS REQUIRED WHERE LIMITED OR NO FIXED PORT FACILITIES EXIST OR ARE DAMAGED.

WHEN CONDUCTING LOTS OPERATIONS, WEATHER IS A CRITICAL FACTOR.

EFFECTIVE APPLICATION OF LIGHTERAGE IS KEY TO ENSURE AN EFFECTIVE THROUGHPUT.

LOTS ARE THE MOST LABOR INTENSIVE AND DEMANDING PORT OPERATIONS TO CONDUCT.



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SHORE OPERATIONS**